The Global Innovation Index 2017

Innovation Feeding the World

Composite Indicators and Scoreboards Community of Practice

9 November 2017

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The Global Innovation Index 2017

Innovation Feeding the World

1. Introduction and Rationale
2. Architecture and Metrics
3. Results and Impact
4. Lessons learned and Challenges

1 Introduction and Rationale

1.1 Introduction

- Measures innovation across some 127 economies
- Leading reference on innovation
- A ‘tool for action’ for decision makers with the goal of improving countries’ innovation performances

- Recognizes innovation as key driver of economic growth
- Offers a holistic analysis of innovation, applicable to both developed and emerging economies alike
- Helps monitor innovation progress on a yearly basis

1.2 Rationale

- Measuring innovation is complex and a moving target

No simple formula

1. Difficulty of right data selection
2. Difficulty of right scaling
3. Difficulty of right aggregation
4. Keeping model constant versus dynamic

Possible criticism: Nature of selection of variables & aggregation

When?

Launched in 2007

Why

To find metrics and approaches that closely mirror innovation environments in society and go beyond traditional measures

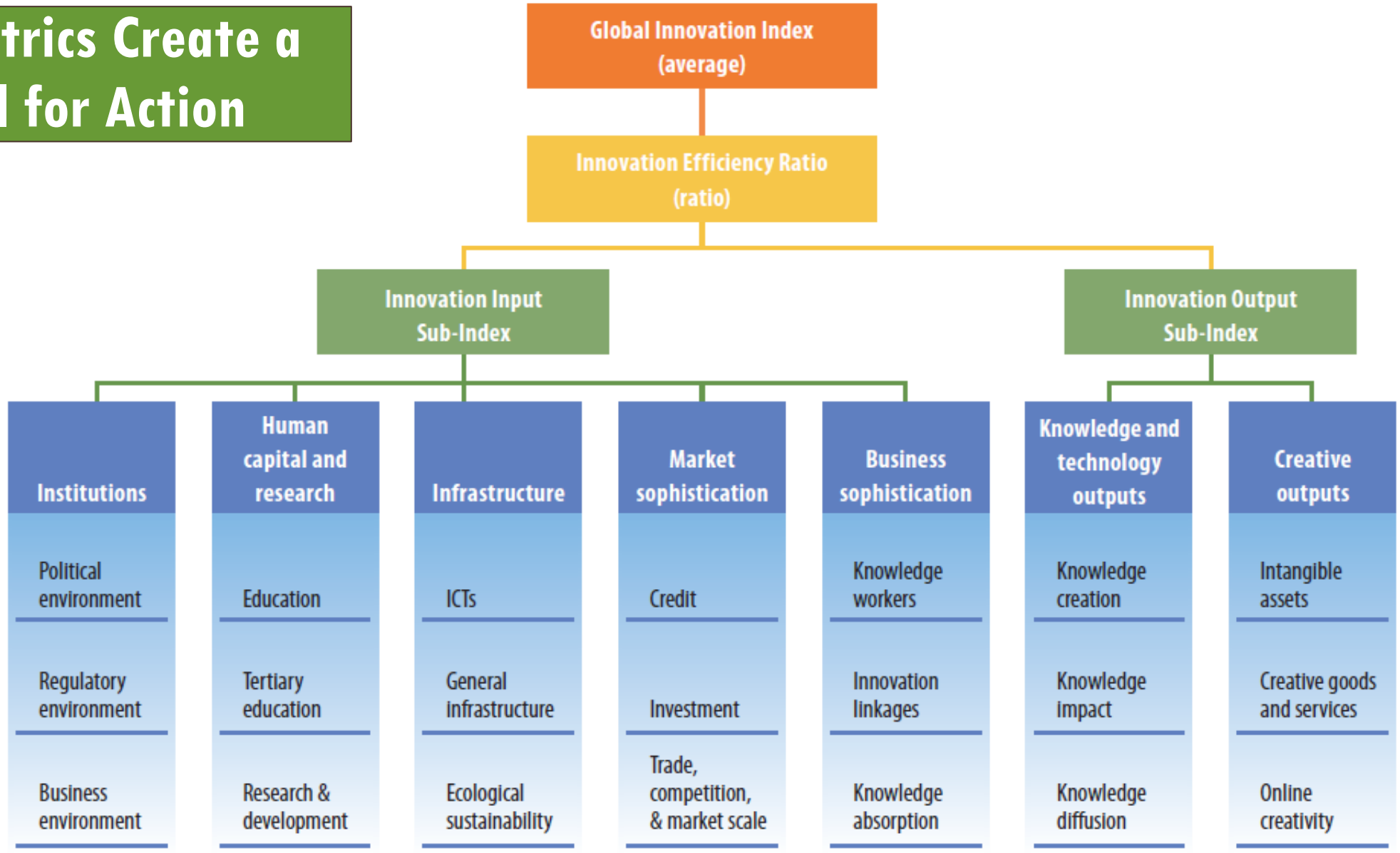
How

Using a collection of metrics to monitor performance over time and to benchmark developments against countries, region and income peers

2 Architecture and Metrics

2.1 Architecture

81 Metrics Create a Tool for Action



2.2 Metrics

The model includes 81 indicators, which fall within the following three categories:

1. Quantitative/objective/**hard data**
   —57 indicators
2. Composite indicators/**index data**
   —19 indicators
3. Survey/qualitative/subjective/**soft data**
   —5 indicators

Patent-related

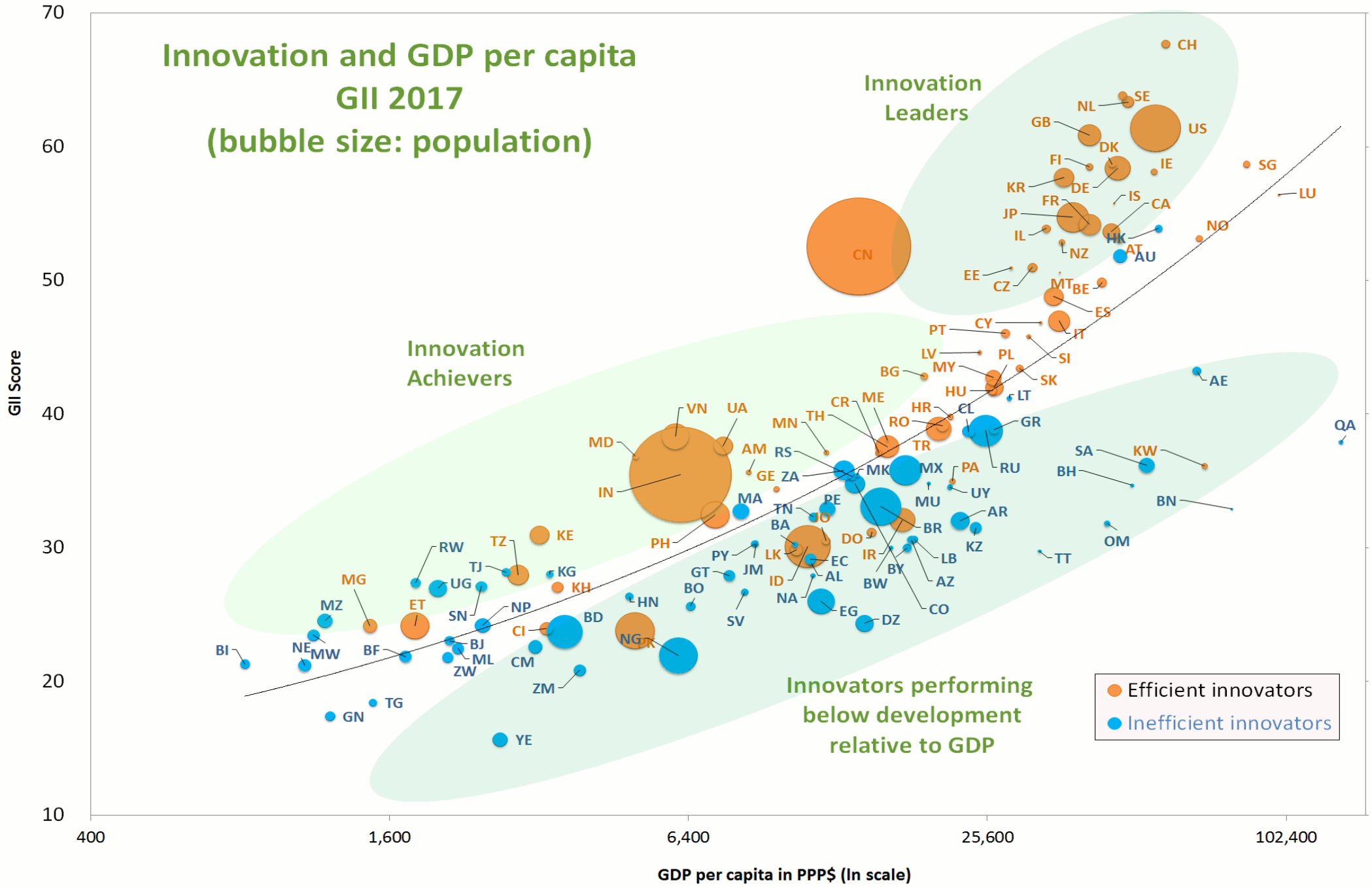
- Patents filed in 2+ offices
- Patents by origin
- PCT patent applications

All scaled by bn PPP$ GDP

3 Results and Impact

3.1 Results: Global rankings of GII 2017 (top 10)

Input Sub-Index	Output Sub-Index	GII
1. Singapore	1. Switzerland	1. Switzerland
2. Sweden	2. Netherlands	2. Sweden
3. Switzerland	3. Sweden	3. Netherlands
4. Finland	4. Luxembourg	4. USA
5. USA	5. USA	5. United Kingdom
6. Denmark	6. United Kingdom	6. Denmark
7. United Kingdom	7. Germany	7. Singapore
8. Hong Kong (China)	8. Ireland	8. Finland
9. Netherlands	9. Korea, Rep.	9. Germany
10. Canada	10. Iceland	10. Ireland


Innovation and GDP per capita
GII 2017
(bubble size: population)
Innovation Leaders
Innovation Achievers
Innovators performing below development relative to GDP
Efficient innovators
Inefficient innovators
GII Score
GDP per capita in PPP$ (ln scale)
70
60
50
40
30
20
10
400
1,600
6,400
25,600
102,400
CH
SE
NL
GB
US
DK
FI
IE
SG
KR
DE
IS
LU
FR
CA
JP
NO
IL
HK
AT
AU
NZ
CN
EE
CZ
MT
BE
ES
CY
IT
PT
SI
LV
PL
MY
SK
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AE
HR
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GR
QA
MN
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UA
MD
AM
RS
SA
KW
MK
MX
PA
RU
BH
IN
GE
ZA
UY
MA
PE
MU
BN
TN
AR
JO
BA
BR
DO
KZ
OM
PH
IR
LB
TT
TZ
KE
PY
LK
EC
BY
RW
TJ
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HN
SN
NP
EG
DZ
BD
SV
CI
NE
MW
BF
BJ
ML
CM
ZW
ZM
BI
TG
GN
YE

Strength

- Scores with percent ranks greater than the 10th largest percent rank among the 81 indicators in that economy.

Weakness

- Scores with percent ranks lower than the 10th smallest percent rank among the 81 indicators in that economy.

Innovation Achievers (17)

- Countries which GII scores are higher than expected, based on their level of economic development as measured by GDP per capita.

Pillar Outperformers (35)

- Countries that outperform their income group peers in four or more GII pillars.

Country Profile

Data Table

The GII rankings generate high levels of 'buzz' but these are not whole story

United States of America

Key indicators

Population (millions)	324.1
GDP (US$ billions)	18,561.9
GDP per capita, PPP$	55,805.2
Income group	High income
Region	Northern America

		Score (0–100 or value [hard data])	Rank
	Global Innovation Index (out of 127)	**61.4**	**4**
	Innovation Output Sub-Index	53.9	5
	Innovation Input Sub-Index	68.9	5
	Innovation Efficiency Ratio	0.8	21
	Global Innovation Index 2016 (out of 128)	61.4	4
1	**Institutions**	**86.2**	**17**
1.1	Political environment	80.3	21
1.1.1	Political stability & safety*	80.8	31
1.1.2	Government effectiveness*	79.7	20
1.2	Regulatory environment	90.4	13
1.2.1	Regulatory quality*	75.3	19
1.2.2	Rule of law*	86.3	18
1.2.3	Cost of redundancy dismissal, salary weeks	8.0	1 ●
1.3	Business environment	88.1	10
1.3.1	Ease of starting a business*	91.2	44
1.3.2	Ease of resolving insolvency*	89.2	5
1.3.3	Ease of paying taxes*	83.9	32
2	**Human capital & research**	**57.2**	**13**
2.1	Education	54.7	41
2.1.1	Expenditure on education, % GDP	4.9	54
2.1.2	Gov't expenditure/pupil, secondary, % GDP/cap	22.7	41
2.1.3	School life expectancy, years	16.5	20
2.1.4	PISA scales in reading, maths, & science	487.6	29
2.1.5	Pupil-teacher ratio, secondary[d]	14.8	63 ○
2.2	Tertiary education	58.1	54
2.2.1	Tertiary enrolment, % gross	85.8	9
2.2.2	Graduates in science & engineering, %	14.9	85 ○
2.2.3	Tertiary inbound mobility, %	4.6	40
2.3	Research & development (R&D)	78.8	4
2.3.1	Researchers, FTE/mn pop[d]	4,232.0	20
2.3.2	Gross expenditure on R&D, % GDP	2.8	10
2.3.3	Global R&D companies, avg. expend. top 3, mn $US	100.0	1 ●
2.3.4	QS university ranking, average score top 3*	99.0	1 ●
3	**Infrastructure**	**61.0**	**21**
3.1	Information & communication technologies (ICTs)	85.2	11
3.1.1	ICT access*	82.7	19
3.1.2	ICT use*	75.7	17
3.1.3	Government's online service*	92.8	9
3.1.4	E-participation*	89.8	12
3.2	General infrastructure	52.8	16
3.2.1	Electricity output, kWh/cap	13,342.4	8
3.2.2	Logistics performance*	89.2	10
3.2.3	Gross capital formation, % GDP	19.8	82 ○
3.3	Ecological sustainability	45.0	61
3.3.1	GDP/unit of energy use	7.6	76 ○
3.3.2	Environmental performance*	84.7	26
3.3.3	ISO 14001 environmental certificates/bn PPP$ GDP	0.3	91 ○
4	**Market sophistication**	**83.4**	**1** ●
4.1	Credit	85.5	1 ●
4.1.1	Ease of getting credit*	95.0	2 ●
4.1.2	Domestic credit to private sector, % GDP	188.8	3 ●
4.1.3	Microfinance gross loans, % GDP	n/a	n/a
4.2	Investment	72.2	3 ●
4.2.1	Ease of protecting minority investors*	64.7	40
4.2.2	Market capitalization, % GDP	139.0	5
4.2.3	Venture capital deals/bn PPP$ GDP	0.4	1 ●
4.3	Trade, competition, & market scale	92.7	1 ●
4.3.1	Applied tariff rate, weighted mean, %	1.6	50
4.3.2	Intensity of local competition†	83.0	5
4.3.3	Domestic market scale, bn PPP$	18,561.9	2 ●
5	**Business sophistication**	**56.4**	**8**
5.1	Knowledge workers	67.4	11
5.1.1	Knowledge-intensive employment, %[d]	38.0	28
5.1.2	Firms offering formal training, % firms	n/a	n/a
5.1.3	GERD performed by business, % of GDP	2.0	7
5.1.4	GERD financed by business, %	64.2	8
5.1.5	Females employed w/advanced degrees, % total	n/a	n/a
5.2	Innovation linkages	46.6	15
5.2.1	University/industry research collaboration†	76.2	4
5.2.2	State of cluster development†	76.0	1 ●
5.2.3	GERD financed by abroad, %	4.7	66 ○
5.2.4	JV–strategic alliance deals/bn PPP$ GDP	0.1	17
5.2.5	Patent families 2+ offices/bn PPP$ GDP	5.0	13
5.3	Knowledge absorption	55.2	6
5.3.1	Intellectual property payments, % total trade	1.6	19
5.3.2	High-tech imports less re-imports, % total trade	17.7	11
5.3.3	ICT services imports, % total trade	1.3	52
5.3.4	FDI net inflows, % GDP	1.7	90 ○
5.3.5	Research talent, % in business enterprise[d]	71.0	4
6	**Knowledge & technology outputs**	**54.4**	**7**
6.1	Knowledge creation	63.4	7
6.1.1	Patents by origin/bn PPP$ GDP	16.0	6
6.1.2	PCT patent applications/bn PPP$ GDP	3.0	14
6.1.3	Utility models by origin/bn PPP$ GDP	n/a	n/a
6.1.4	Scientific & technical articles/bn PPP$ GDP	19.8	38
6.1.5	Citable documents H index	100.0	1 ●
6.2	Knowledge impact	52.5	7
6.2.1	Growth rate of PPP$ GDP/worker, %	0.7	67 ○
6.2.2	New businesses/th pop. 15–64	n/a	n/a
6.2.3	Computer software spending, % GDP	1.1	1 ●
6.2.4	ISO 9001 quality certificates/bn PPP$ GDP	1.8	94 ○
6.2.5	High- & medium-high-tech manufactures, %[d]	0.4	13
6.3	Knowledge diffusion	47.3	12
6.3.1	Intellectual property receipts, % total trade	5.1	1 ●
6.3.2	High-tech exports less re-exports, % total trade	7.1	26
6.3.3	ICT services exports, % total trade	1.5	68
6.3.4	FDI net outflows, % GDP	2.1	29
7	**Creative outputs**	**53.5**	**10**
7.1	Intangible assets	50.1	38
7.1.1	Trademarks by origin/bn PPP$ GDP	21.5	81 ○
7.1.2	Industrial designs by origin/bn PPP$ GDP	1.3	54
7.1.3	ICTs & business model creation†	79.2	12
7.1.4	ICTs & organizational model creation†	82.3	1 ●
7.2	Creative goods & services	48.2	5
7.2.1	Cultural & creative services exports, % of total trade[d]	2.0	1 ●
7.2.2	National feature films/mn pop. 15–69	3.5	53
7.2.3	Global ent. & media market/th pop. 15–69	97.1	3 ●
7.2.4	Printing & publishing manufactures, %[d]	1.9	24
7.2.5	Creative goods exports, % total trade	1.7	31
7.3	Online creativity	65.4	7
7.3.1	Generic top-level domains (TLDs)/th pop. 15–69	100.0	1 ●
7.3.2	Country-code TLDs/th pop. 15–69	2.9	58
7.3.3	Wikipedia edits/mn pop. 15–69	6.1	41
7.3.4	Video uploads on YouTube/pop. 15–69	100.0	1 ●

NOTES: ● indicates a strength; ○ a weakness; * an index; † a survey question.
[d] indicates that the country's data are older than the base year; see Appendix II for details, including the year of the data, at http://globalinnovationindex.org.
Square brackets indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level; see page 181 of this appendix for details.

2.3.2 Gross expenditure on R&D (GERD)

GERD: Gross expenditure on R&D (% of GDP) | 2015

Rank	Country/Economy	Value	Score (0–100)	Percent rank	
1	Israel	4.30	100.00	1.00	●
2	Korea, Rep.	4.23	98.40	0.99	●
3	Japan	3.49	81.17	0.98	●
4	Sweden	3.28	76.24	0.97	●
5	Austria	3.10	71.91	0.96	●
6	Denmark	3.02	70.12	0.95	
7	Switzerland (2012)	2.97	68.87	0.94	
8	Finland	2.93	68.01	0.94	
9	Germany	2.88	66.89	0.93	
10	United States of America	2.80	65.04	0.92	
11	Belgium	2.46	57.06	0.91	●
12	France	2.23	51.63	0.90	
13	Iceland	2.22	51.34	0.89	
14	Slovenia	2.21	51.30	0.88	
15	Singapore (2014)	2.20	50.98	0.87	
16	Australia (2013)	2.20	50.89	0.86	
17	China	2.09	48.51	0.85	
18	Netherlands	2.01	46.52	0.84	
19	Czech Republic	1.98	45.91	0.83	
20	Norway	1.93	44.59	0.83	
21	United Kingdom	1.71	39.50	0.82	
22	Canada (2014)	1.61	37.29	0.81	
23	Ireland (2014)	1.55	35.71	0.80	
24	Estonia	1.48	34.18	0.79	
25	Hungary	1.39	32.07	0.78	
26	Italy	1.34	30.87	0.77	
27	Luxembourg	1.29	29.70	0.76	
28	Portugal	1.28	29.43	0.75	
29	Malaysia (2014)	1.26	29.11	0.74	
30	Spain	1.22	28.08	0.73	
31	Slovakia	1.19	27.36	0.72	
32	Brazil (2014)	1.17	26.91	0.72	●
33	New Zealand (2013)	1.15	26.59	0.71	
34	Russian Federation	1.13	26.06	0.70	
35	Lithuania	1.04	23.98	0.69	
36	Poland	1.01	23.20	0.68	
37	Turkey (2014)	1.01	23.14	0.67	
38	Bulgaria	0.98	22.54	0.66	
39	Greece	0.96	21.97	0.65	
40	Serbia	0.88	20.20	0.64	
41	United Arab Emirates	0.87	19.85	0.63	
42	Croatia	0.85	19.57	0.62	
43	India (2011)	0.83	19.05	0.61	
44	Saudi Arabia (2013)	0.82	18.75	0.61	
45	Kenya (2010)	0.79	17.99	0.60	
46	Malta (2014)	0.76	17.44	0.59	
47	Hong Kong (China) (2014)	0.74	16.93	0.58	
48	South Africa (2013)	0.73	16.59	0.57	
49	Egypt	0.72	16.51	0.56	
50	Morocco (2010)	0.71	16.32	0.55	
51	Tunisia (2014)	0.65	14.92	0.54	
52	Thailand	0.63	14.24	0.53	
53	Latvia	0.62	14.23	0.52	
54	Ukraine	0.62	14.06	0.51	
55	Argentina (2014)	0.61	13.95	0.50	
56	Ethiopia (2013)	0.60	13.76	0.50	
57	Costa Rica (2014)	0.58	13.28	0.49	
58	Mali (2010)	0.58	13.27	0.48	
59	Mexico	0.55	12.51	0.47	
60	Botswana (2013)	0.54	12.27	0.46	
61	Senegal (2010)	0.54	12.27	0.45	
62	Tanzania, United Rep. (2013)	0.53	12.00	0.44	
63	Belarus	0.52	11.71	0.43	
64	Romania	0.49	11.08	0.42	
65	Uganda (2010)	0.48	10.75	0.41	
66	Qatar (2013)	0.47	10.61	0.40	
67	Cyprus	0.46	10.42	0.39	
68	Ecuador (2014)	0.45	10.06	0.39	
69	TFYR of Macedonia	0.44	9.99	0.38	
70	Jordan (2008)	0.43	9.79	0.37	
71	Chile	0.39	8.67	0.36	
72	Montenegro	0.38	8.51	0.35	
73	Viet Nam (2013)	0.37	8.37	0.34	
74	Moldova, Rep.	0.37	8.29	0.33	
75	Mozambique	0.34	7.58	0.32	
76	Namibia (2014)	0.34	7.55	0.31	
77	Uruguay (2014)	0.34	7.48	0.30	
78	Iran, Islamic Rep. (2012)	0.33	7.23	0.29	
79	Nepal (2010)	0.30	6.70	0.28	
80	Kuwait (2013)	0.30	6.69	0.28	
81	Zambia (2008)	0.28	6.14	0.27	
82	Togo (2014)	0.27	5.99	0.26	
83	Armenia	0.25	5.48	0.25	
84	Pakistan	0.25	5.40	0.24	
85	Oman	0.24	5.37	0.23	
86	Colombia	0.24	5.29	0.22	○
87	Azerbaijan	0.22	4.84	0.21	
88	Bosnia and Herzegovina	0.22	4.82	0.20	
89	Nigeria (2007)	0.22	4.76	0.19	
90	Burkina Faso (2009)	0.20	4.32	0.18	
91	Mauritius (2012)	0.18	3.88	0.17	○
92	Kazakhstan (2013)	0.17	3.53	0.17	
93	Bolivia, Plurinational St. (2009)	0.16	3.31	0.16	
94	Mongolia	0.15	3.26	0.15	
95	Albania (2008)	0.15	3.25	0.14	
96	Philippines (2013)	0.14	2.87	0.13	
97	Peru	0.13	2.75	0.12	○
98	Paraguay	0.13	2.61	0.11	
99	Burundi (2011)	0.12	2.48	0.10	
100	Kyrgyzstan	0.12	2.47	0.09	
101	Tajikistan (2013)	0.12	2.40	0.08	
102	Sri Lanka (2013)	0.10	2.00	0.07	○
103	Bahrain (2014)	0.10	1.98	0.06	○
104	Georgia (2014)	0.10	1.95	0.06	○
105	Indonesia (2013)	0.08	1.63	0.05	○
106	El Salvador (2014)	0.08	1.62	0.04	○
107	Trinidad and Tobago (2014)	0.08	1.47	0.03	○
108	Panama (2013)	0.06	1.12	0.02	○
109	Guatemala (2012)	0.04	0.69	0.01	○
110	Madagascar (2014)	0.02	0.00	0.00	○
n/a	Algeria	n/a	n/a	n/a	
n/a	Bangladesh	n/a	n/a	n/a	
n/a	Benin	n/a	n/a	n/a	
n/a	Brunei Darussalam	n/a	n/a	n/a	
n/a	Cambodia	n/a	n/a	n/a	
n/a	Cameroon	n/a	n/a	n/a	
n/a	Côte d'Ivoire	n/a	n/a	n/a	
n/a	Dominican Republic	n/a	n/a	n/a	
n/a	Guinea	n/a	n/a	n/a	
n/a	Honduras	n/a	n/a	n/a	
n/a	Jamaica	n/a	n/a	n/a	
n/a	Lebanon	n/a	n/a	n/a	
n/a	Malawi	n/a	n/a	n/a	
n/a	Niger	n/a	n/a	n/a	
n/a	Rwanda	n/a	n/a	n/a	
n/a	Yemen	n/a	n/a	n/a	
n/a	Zimbabwe	n/a	n/a	n/a	

SOURCE: UNESCO Institute for Statistics, *UIS online database*
NOTE: ● indicates a strength; ○ a weakness

Innovation Feeding the World : from Digital to Smart Agriculture

- **Solving the food equation** (feeding 10 billion people while reducing pressure on natural resources (land, energy eg) requires innovation.
- A wave of new agricultural innovations is taking place (**digital agriculture**), but rolling out rather slowly in many parts of the world

- **Smart agriculture** (distribution, value chains) is now required on a global scale
- Policy makers have a responsibility to provide **funding mechanisms** to stimulate innovation in agriculture and food production, especially in developing countries, which have yet to benefit from earlier waves of agricultural innovations

Collaboration

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Independent statistical audit

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3.2 Impact

UN Secretary- General stressed that the GII is a '**unique tool for refining innovation policies …', and for assessing where more efforts are urgently needed'**

Impact and responsibility

- GII 2017 mentioned in over 6,300 articles worldwide

DENHAM SADLER | JUNE 19, 2017

'Chilling' fall in global tech rank

Policy

Arthur Sino

Aus
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Kor

Regional launches and thematic events

Investigación y políticas públicas, claves de Latinoamérica en innovación

Por EFE - 21 Agosto, 2017 - EnCiencia Y Tecnología 0

El investigador líder de la Escuela de Negocios SC Johnson de la Universidad de Cornell, Rafael Escalona. EFE

San José, 21 ago (EFE).- Apostar con más fuerza por la investigación, políticas públicas articuladas y una relación estrecha entre lo público y lo privado son los puntos claves para que Latinoamérica mejore sus niveles de innovación, afirmaron hoy expertos en la materia reunidos en Costa Rica.

El director adjunto de la Organización Mundial de Propiedad Intelectual (OMPI), Mario

Beyond impact: Responsibility

- **Better (and more) collection of innovation data**. Many countries have increased their collection and use of innovation metrics that conform to international standards.
- **Ten-year rich time-series dataset**.
  - Every year, the GII model is updated and revised, based on the latest knowledge on innovation systems theory and a thorough revision of available indicators;
  - But also, based on readership feedback from the international community and GII users (policymakers, academia, practitioners, etc.).
- **Identification of best practices and innovation achievers**
- Possibility of making intra-regional and intra-income group comparisons, which provide a more realistic basis for action.

Beyond impact: Responsibility

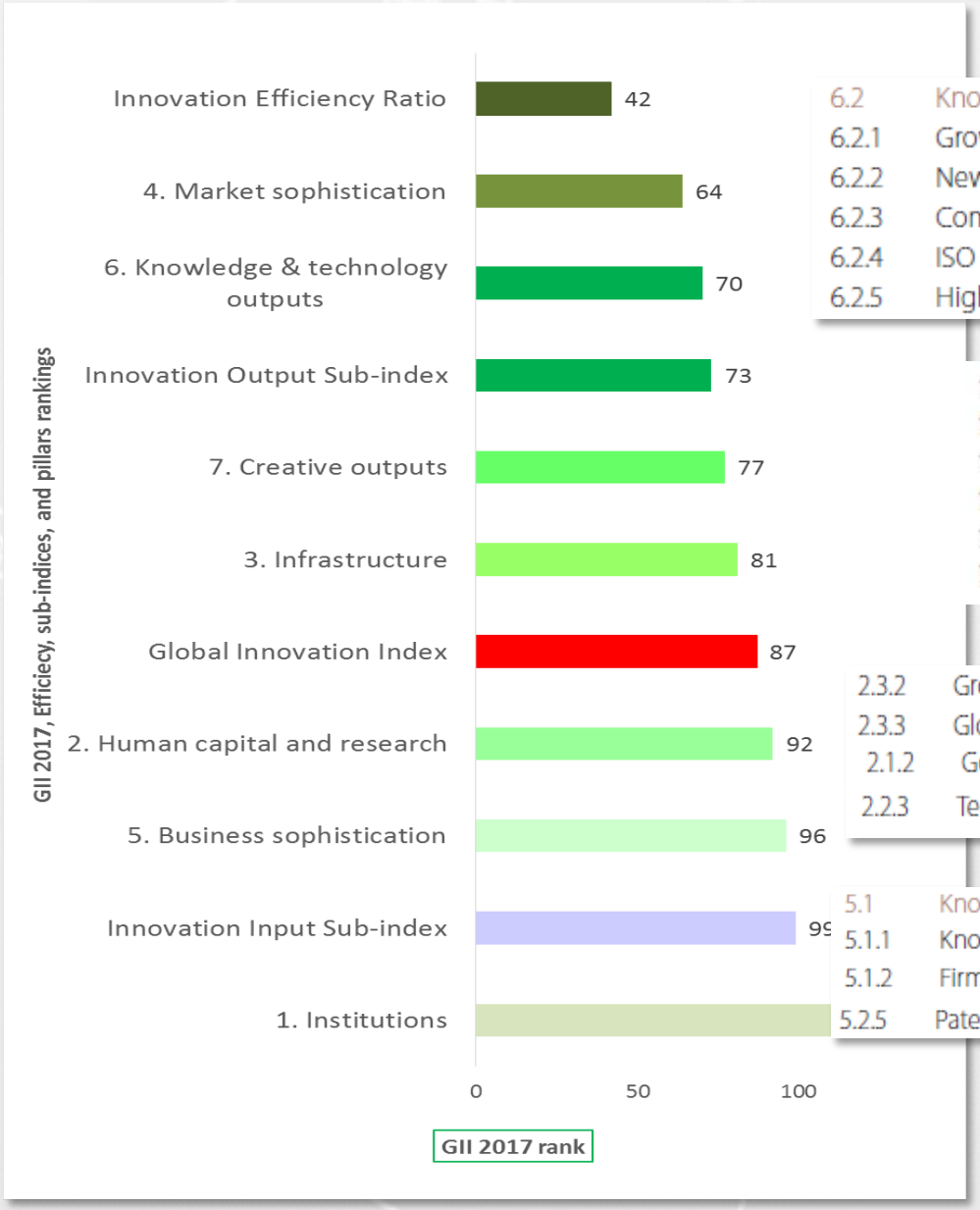
- In the case of developing and least developed countries, action in the field of innovation is not just about ‘refining’ existing policy frameworks, but very often **designing and transforming** whole national approaches for innovation.
    - Innovation is a ‘mindset’
    - Not only R&D investment is important

4 Lessons learned and Challenges

Innovation trends from 10 years of the GII

- Innovation activities confronted with **low investment** and resource constraints
- Evolving innovation landscape: **emerging economies play** increasingly role in innovation
- Good **quality of innovation** remains a distinct characteristic of innovation leaders
- The **innovation divide** remains
- **Sub-Saharan Africa** region sees the most significant improvements in the GII rankings, still needs support
- **Key role of governments**, and of public and coordinated private investments in creating sound innovation systems

Country profiles: an example for Indonesia



6.2	Knowledge impact	39.8	33
6.2.1	Growth rate of PPP$ GDP/worker, %	4.6	9
6.2.2	New businesses/th pop. 15–64	0.3	91
6.2.3	Computer software spending, % GDP	0.3	36
6.2.4	ISO 9001 quality certificates/bn PPP$ GDP	3.0	80
6.2.5	High- & medium-high-tech manufactures, %	0.3	43

7.2	Creative goods & services	22.3	52
7.2.1	Cultural & creative services exports, % of total trade	n/a	n/a
7.2.2	National feature films/mn pop. 15–69	0.5	93
7.2.3	Global ent. & media market/th pop. 15–69	1.8	52
7.2.4	Printing & publishing manufactures, %	0.5	88
7.2.5	Creative goods exports, % total trade	3.9	13

2.3.2	Gross expenditure on R&D, % GDP	0.1	105
2.3.3	Global R&D companies, avg. expend. top 3, mn $US	0.0	43
2.1.2	Gov't expenditure/pupil, secondary, % GDP/cap	9.9	97
2.2.3	Tertiary inbound mobility, %	0.1	104

5.1	Knowledge workers	9.7	123
5.1.1	Knowledge-intensive employment, %	9.8	96
5.1.2	Firms offering formal training, % firms	7.7	90
5.2.5	Patent families 2+ offices/bn PPP$ GDP	0.0	117

Tool for policy advice

Analysis of Broad trends

Quantity of innovation-related investments too low

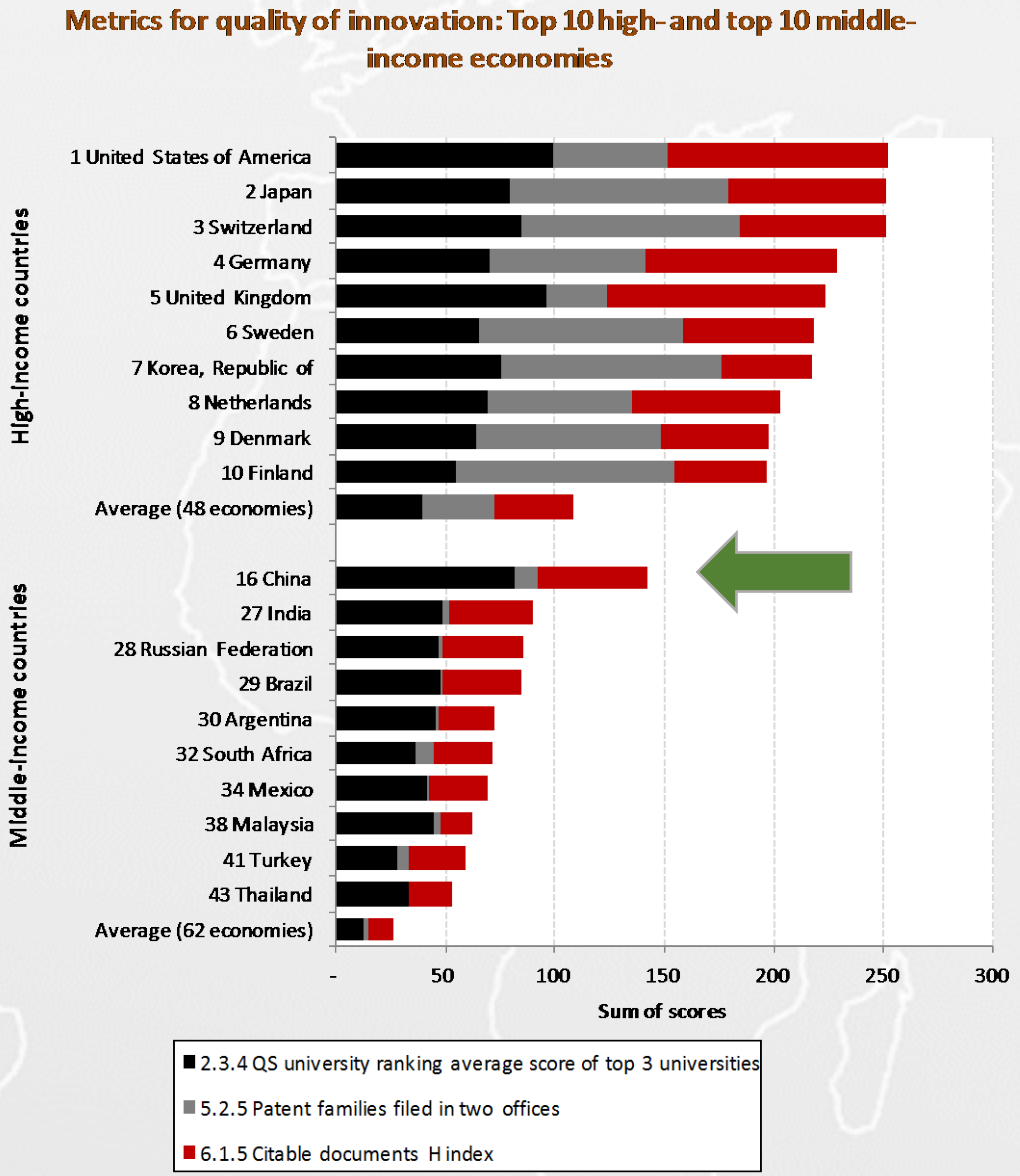
Quality indicators however are much better, such as university rankings or quality of scientific publications

Forward-looking indicators strong – gross investment, software spending, share of S&T graduates

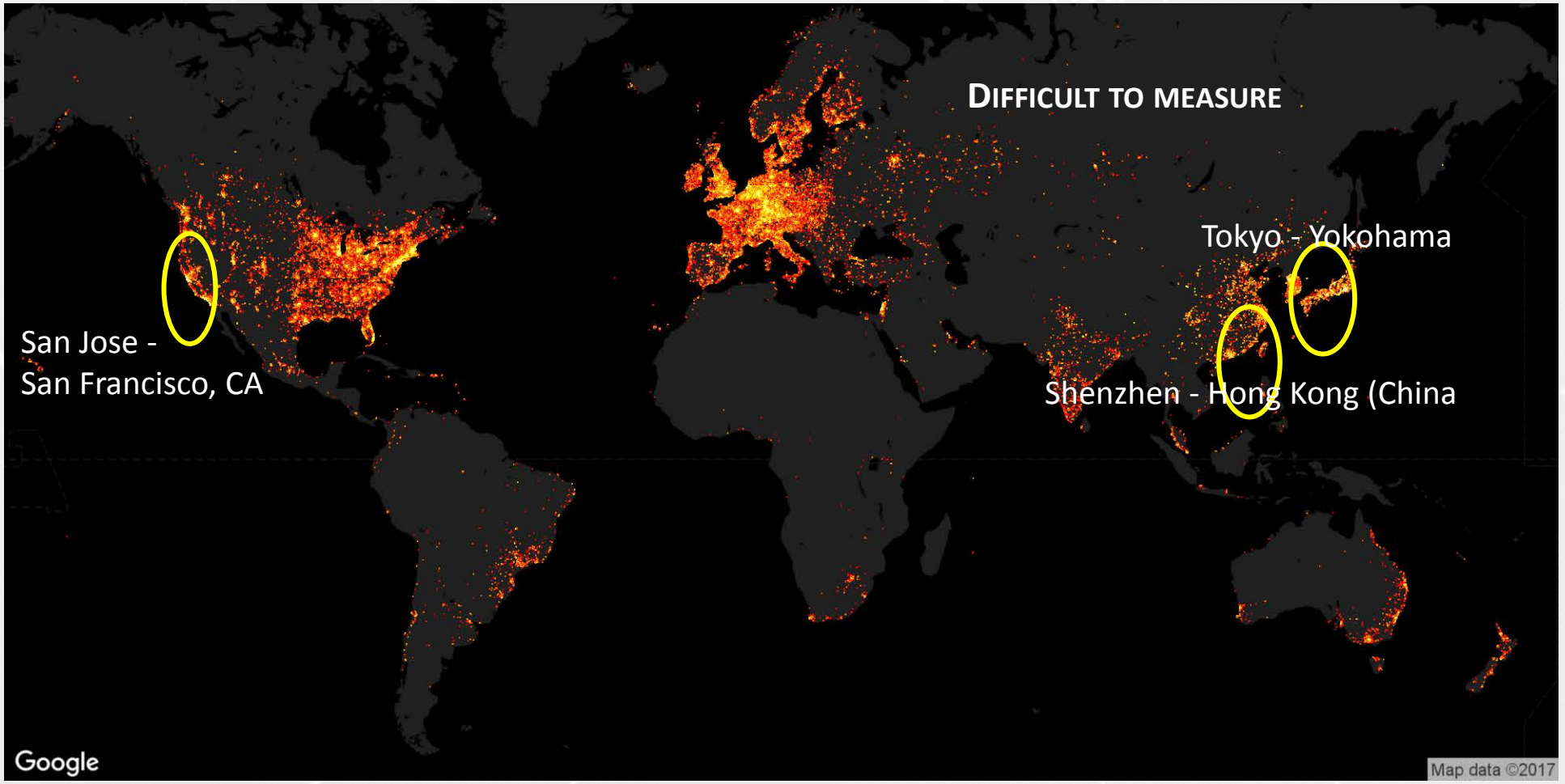
Perception-based indicators are strong – quality of university-industry relations,

Innovation Quality matters for impact: an example for China

- Not all innovation inputs and outputs are of equal quality
- China still 1st among middle-income countries
- China performs at the level of high income economies in quality of universities and quality of publications.
- The gap, although closing, remains large in patent quality



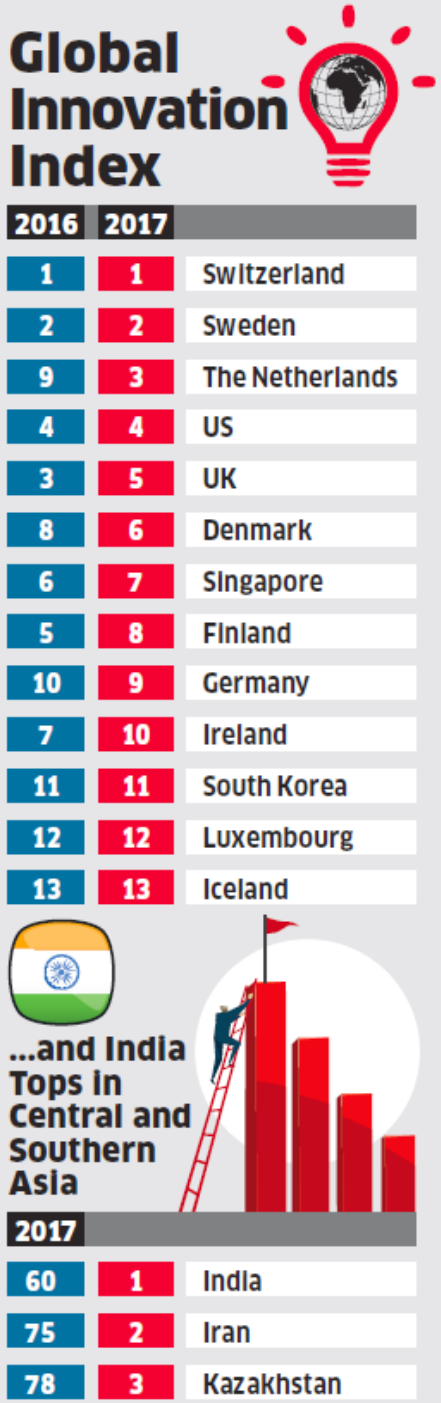
Innovation Clusters and Creativity Hubs



Successful innovation clusters are essential for achieving a competitive edge.

Source: WIPO IP Statistics Database, February 2017; Google Maps API, April 2017.
Map data: Google, INEGI 2017.
Note: Yellow colour represents noise; orange dots represent clusters.

India Innovation Index



"GII gives us an opportunity to look at innovation and to rethink about our progress. … also to compare with the best in the world, to look at best practices around and then learn from them"

- Rank Indian states on Innovations through country's first online innovation index portal
- Framework structured based on the best practices followed in the GII indicators
- Adding India-centric parameters reflecting the Indian innovation ecosystem
- Capture data on innovation from all Indian states on innovation and regularly update it in real time

Points of action

- Continuous Action on missing data, in particular by developing and emerging countries:
  - Contact data providers and issue timely data
  - Search for advice on data submission from data providers and compiling institutions.
  - Other technical guidance from GII team.

Caveats and expectation management

- Policies take long to translate into improved ranking
- Do not over focus on a few positions up or down – the trend and innovation policy persistence matters.
- Adding new data points does not necessarily guarantee an increase in rank

Thank you for your attention

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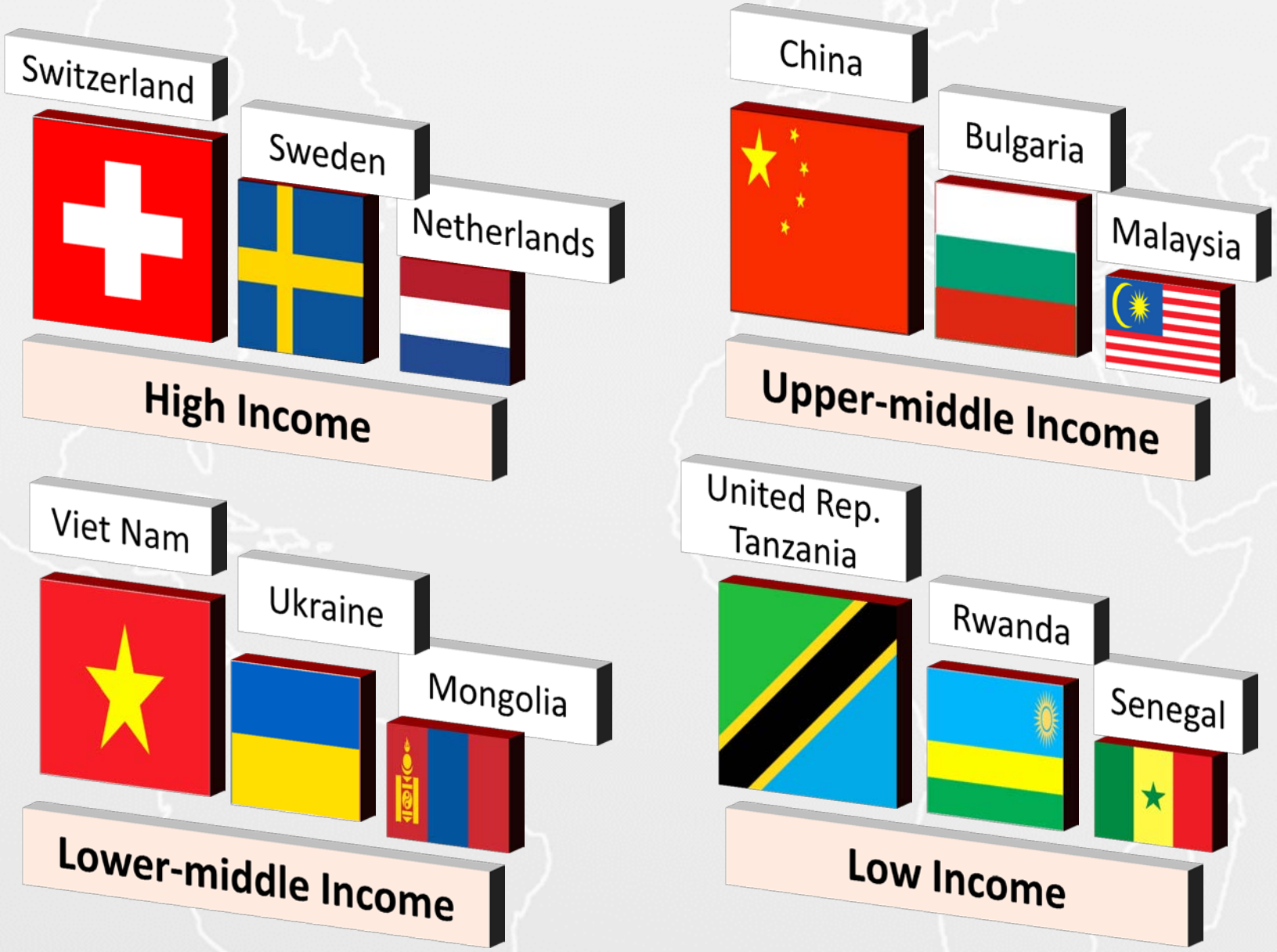
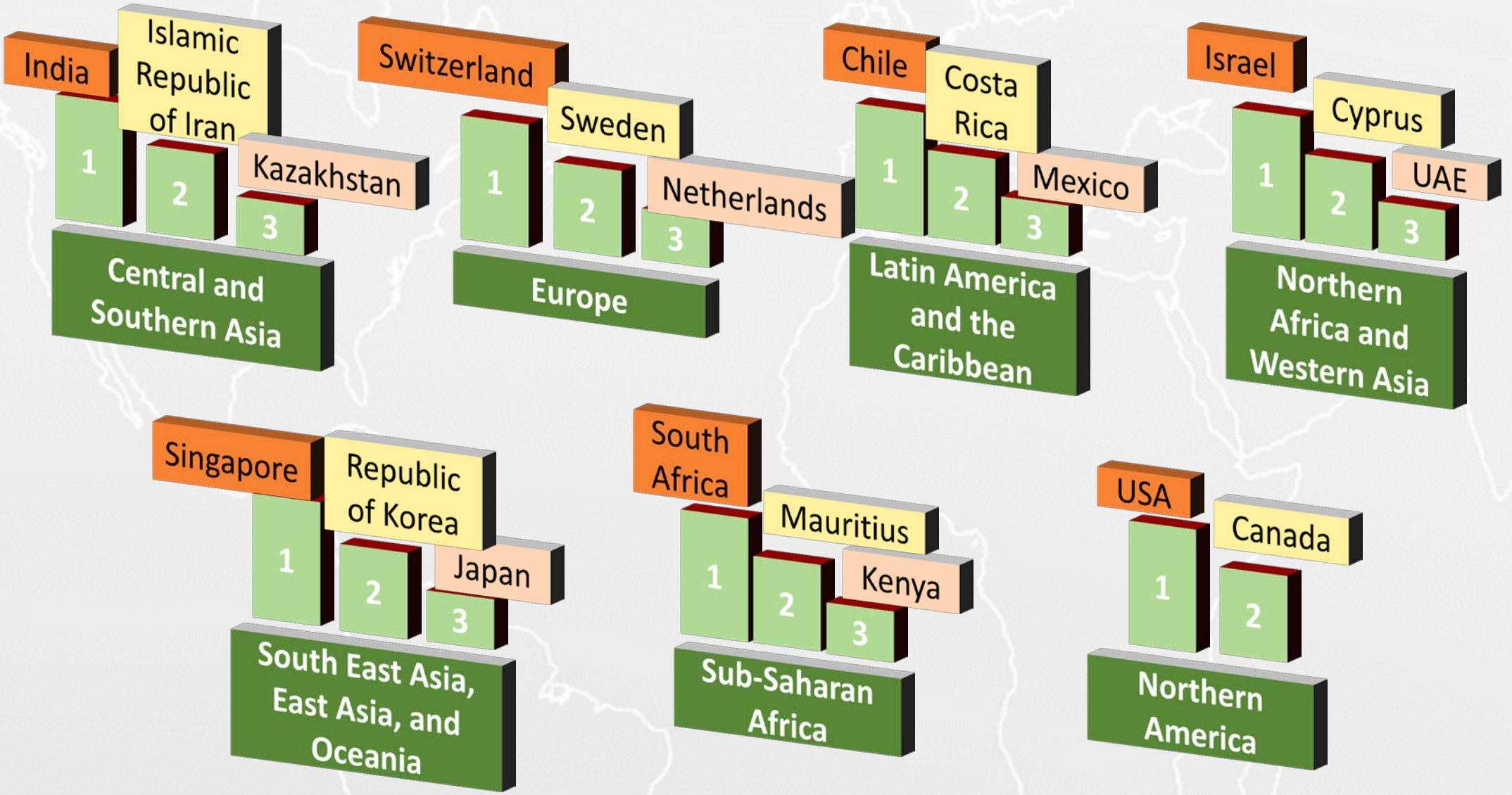
Annexes

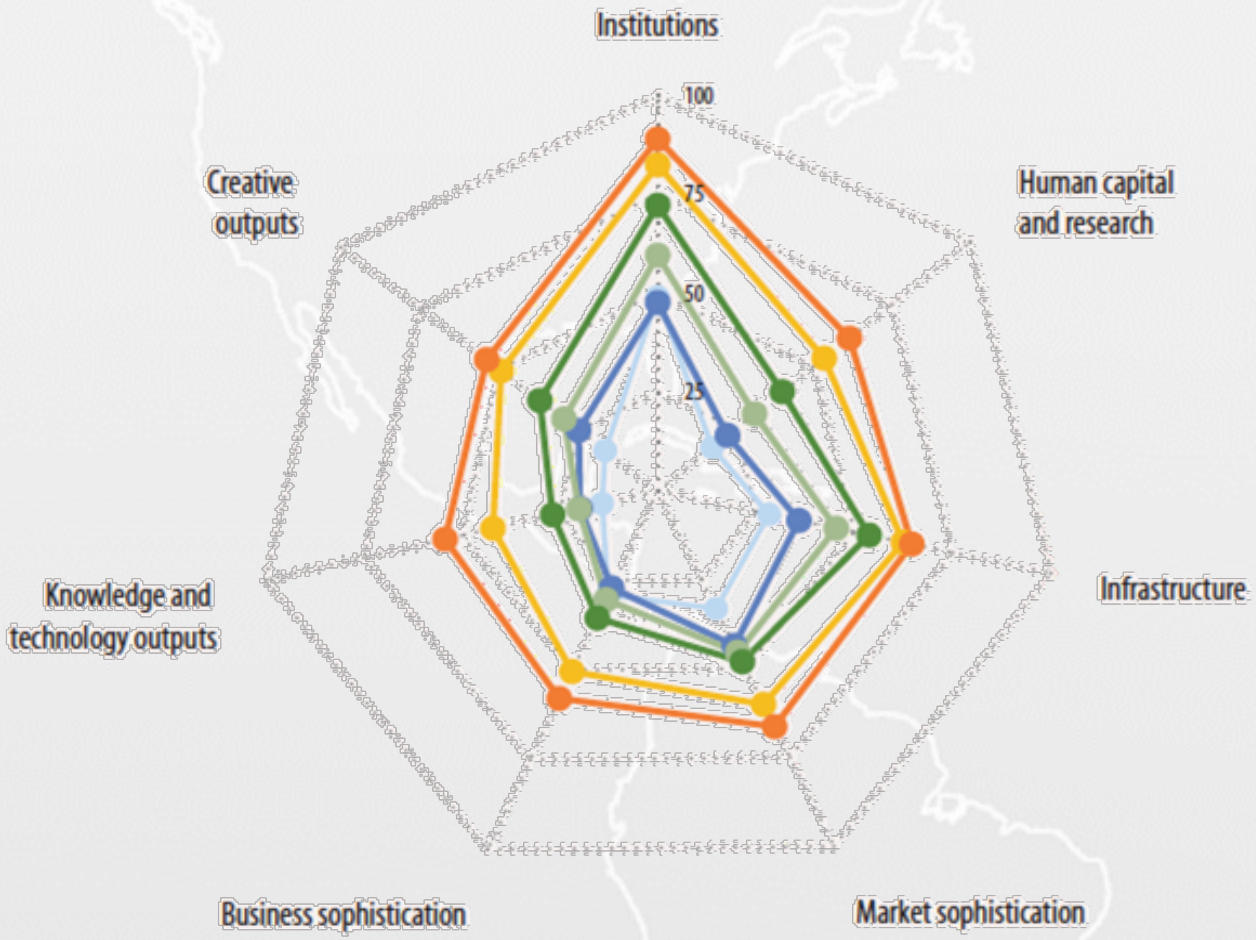
Income Group Rankings (top 3)



Regional Rankings – Top 3

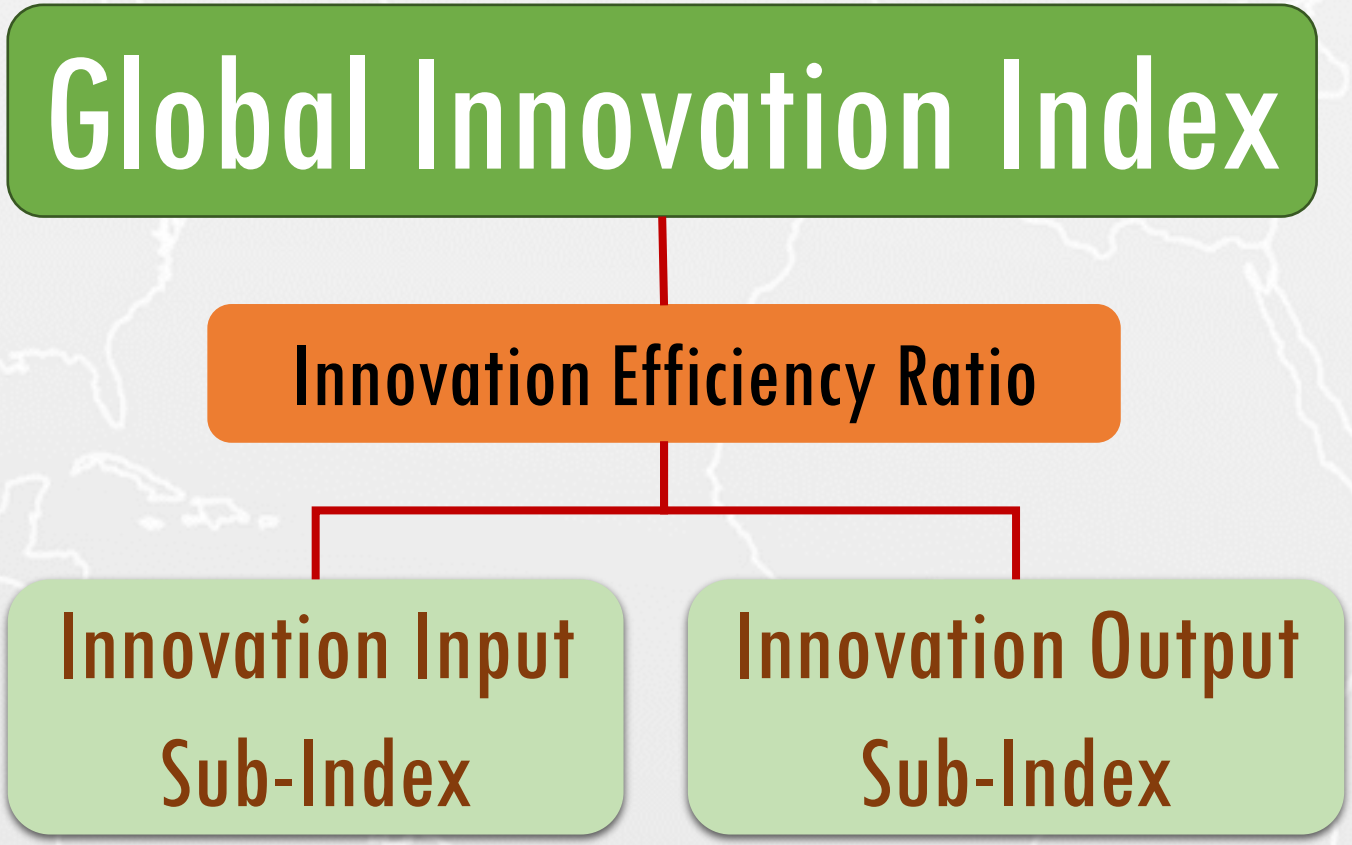


More innovation convergence is needed



- GII remains stable at the top
- China keeps rising
- Continued gap between developed and developing nations
- Low-income economies closing the gap

Basic GII Structure (1/2)



Basic GII Structure (2/2)

Innovation Input Sub-Index

1. Institutions
2. Human capital and research
3. Infrastructure
4. Market sophistication
5. Business sophistication

Innovation Output Sub-Index

6. Knowledge and technology outputs
7. Creative outputs

The two sub-indices have the same weight